

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026474**Date Inspected:** 05-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 10W PP88 W4 Lifting Lug hole (Interior)
2. 12E PP100 E3 Lifting Lug Holes (Interior)
3. 12E PP115 E4 Lifting Lug holes (Exterior)
4. 12E 13E A1 Deck Welding (Exterior)
5. 12W 13W D1/D2 Fit-Up (Interior)
6. 12E 13E A3/A4 Deck Welding (Exterior)
7. 12E 13E A5 Deck Welding (Exterior)

1. 10W PP88 W4 Lifting Lug hole (Interior)

The QA inspector observed the QC inspector identified as Sal Moreno perform Magnetic Particle Inspection of completed cover welds on Lifting Lug Holes #2 and 4 at 10W PP88 W4 on the interior of the OBG. The QA inspector verified that the proper procedure was utilized as well as correct technique. The testing found no indications and the QA inspector verified the findings and noted that the work appears to be in general conformance with the contract documents.

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2. 12E PP100 E3 Lifting Lug Holes (Interior)

The QA inspector observed the QC inspector identified as Fred Von Hoff perform Magnetic Particle Inspection of completed cover welds on Lifting Lug Holes #1 and 3 at 12E PP100 E3 on the interior of the OBG. The QA inspector verified that the proper procedure was utilized as well as correct technique. The testing found no indications and the QA inspector verified the findings and noted that the work appears to be in general conformance with the contract documents.

3. 12E PP115 E4 Lifting Lug holes (Exterior)

The QA inspector observed ABF welder Jorge Lopez ID# 6149 performing Shielded Metal Arc Welding (SMAW) in the 1G flat position on Lifting Lug Hole (LLH) #1 located at 12E PP115 E4. The QA inspector verified the fit up of the joint and found it to be satisfactory. The QA inspector observed the QC inspector identified as Fred Von Hoff monitoring the progress to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU.

The parameters were recorded as (Amperes=135).

The QA inspector made subsequent observations throughout the shift to monitor quality and the QA inspector noted that the work was in progress and appeared to be in general conformance with the contract documents.

4. 12E 13E A1 Deck Welding (Exterior)

The QA inspector randomly observed ABF welding operators Wai Kit Lai ID#2953 performing Flux Core Arc Welding with gas (FCAW-G) on the root of A1 at 11E 12E of the OBG. The QA inspector observed the QC inspector identified as William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-F3200-2. The parameters were recorded as (A=283/V=25/TS=365/HI=1.16). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

5. 12W 13W D1/D2 Fit-Up (Interior)

This QA performed observation at random intervals of approved ABF welding personnel performing fit-up and Shielded Metal Arc Welding (SMAW) of temporary attachments at the "D" bottom plate of 12W/13W segment splice.

In conjunction with QC William Sherwood this QA performed a visual survey of joint fit-up for the 35mm thick section of the "D" bottom plate of 12W/13W segment splice. Taking measurements at locations between open rib stiffeners with an iGauge digital caliper gauge it was observed that the root opening varied between 10.5mm ~ 15mm. The bevel angle measurements were taken from both the 12W and 13W plates and were found to range from 180 ~ 380.

In addition, this QA and QC Sherwood also measured the planar offset of this section of the joint. Below are areas of measurement that were noted to be 3mm or more.

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D2

Y = 5800mm, offset = 3mm

Y = 5870mm, offset = 3mm

Y = 6310mm, offset = 4mm

Y = 6650mm, offset = 4mm

6. 12E 13E A3/A4 Deck Welding (Exterior)

The QA inspector randomly observed ABF welding operators James Zhen ID#6001 performing Flux Core Arc Welding with gas (FCAW-G) on the root of A3 and A4 at 11E 12E of the OBG. The QA inspector observed the QC inspector identified as William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-F3200-2. The parameters were recorded as (A=270/V=24.7/TS=350/HI=1.14). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

7. 12E 13E A5 Deck Welding (Exterior)

The QA inspector randomly observed ABF welding operators Xiao Jian Wan ID#9677 performing Flux Core Arc Welding with gas (FCAW-G) on the root of A5 at 11E 12E of the OBG. The QA inspector observed the QC inspector identified as William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-F3200-2. The parameters were recorded as (A=270/V=25/TS=370/HI=1.09). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

Note: This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

Summary of Conversations:

At the beginning the shift the QA inspector met with QC inspector William Sherwood and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.



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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
